

XXXVIII.—*A Story about the Giant Goatsucker of Brazil* (*Nyctibius jamaicensis*). By DR. EMIL A. GOELDI, H.M.B.O.U., Director of the Goeldi Museum, Pará.

My attention was first called many years ago to the fact that the "Urutáu" (or Giant Goatsucker) of Brazil was an object of legendary interest to the country-people, as was likely to be the case with such a large nocturnal bird. I have already noticed traces of such legends in Southern Brazil*, and from 1894 to the present time I have frequently met with further instances of the same tendency.

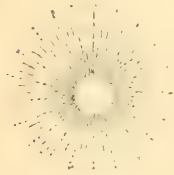
Soon after my arrival at the mouth of the Amazon I happened to hear one of these legends, which seems to me to be of sufficient interest to be noticed briefly from a scientific standpoint. It is not my habit to reject such stories as utterly unworthy of attention; on the contrary, having learned from previous experience that there is almost always a germ of truth in them, I have thought it worth while to investigate the facts which may be supposed to have given rise to such notions.

The common people think that the Urutáu "*traça o caminho do sol*,"—that is, "marks out the path of the sun." I can best help the reader to understand the meaning of this phrase by the accompanying sketches, which I have drawn especially for this purpose.

The first series of drawings (text-fig. 11, p. 514) illustrates the popular idea of the different attitudes assumed by the bird during the hours of daylight.

The first figure (on the right) represents the Goatsucker perched on the end of a dry bough (of which it seems to form a prolongation) about sunrise. It will be seen that it stands facing the eastern sun. The second figure represents the same bird at mid-day, when it appears in an almost vertical position with its gaze fixed on the sun in the zenith right over its head. The third figure (on the left) shews the bird as it is supposed to sit about the hour of

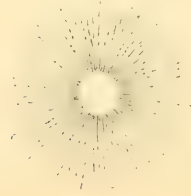
* See the author's 'Aves do Brazil,' i. p. 199 (1894).



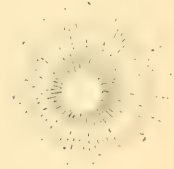
MORNING



What the Giant Gotscheker is supposed to do.



MID-DAY



AFTERNOON

Text-fig. 11.

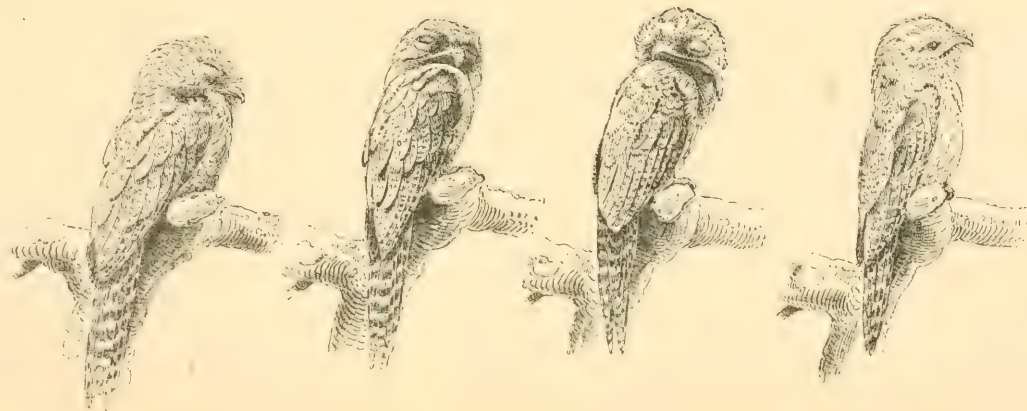
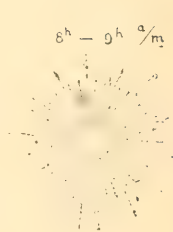
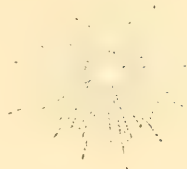
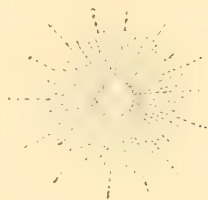
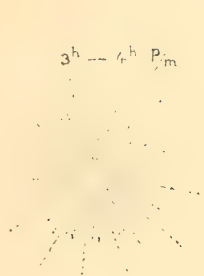
Text-fig. 12.

1^h - 2^h $\frac{P}{m}$,

11^h - 12^h $\frac{a}{m}$

3^h - 4^h $\frac{P}{m}$

8^h - 9^h $\frac{a}{m}$



What the Giant Goatsucker actually does.
(From photographs taken at intervals of 2 hours.)

sunset, with its head turned to the west, having by that time described half a circle with its beak from east to west. During the twelve hours of daylight its body has remained in nearly the same position.

In order to ascertain whether there was any real basis for the popular notion on this subject, I made careful observations on a fine living specimen from the Island of Marajó, which had been presented to our Zoological Gardens in August 1898. I placed the bird, with a loose string tied to its foot, on a large branch exposed to the full rays of the sun, so that it could take the exact attitude that it would in a wild state under the same circumstances. This was done on a low tree in the middle of an open place in our Botanical Garden. I resolved to photograph the bird at intervals of two hours during the day, so as to obtain a series of pictures giving a precise idea of the bird's movements. From the photographs thus obtained I have selected four which best shew the relative positions of the head in life, and have had them copied by our artist.

These are given in the second series (text-fig. 12, p. 515), nothing having been added to the originals except the sun in its relative position, for the double purpose of aiding the reader to realize the bird's situation in each successive phase and of facilitating comparison with the first series of figures.

The first photograph, taken between 8 and 9 o'clock in the morning, is reproduced in the figure on the extreme right. The bird is seen wide awake, with its eyes open, and not yet shewing any sign of avoiding the direct rays of the morning sun.

The second figure, photographed between 11 and 12 o'clock, represents the Goatsucker in an essentially different position. The sun is almost directly over its head, and has evidently had the effect of making the bird turn its head away at a right angle, its body remaining in the original position. Its eyes are closed, thus shewing its desire to avoid the already unpleasant sensation of the noon-day glare.

In the third figure is shown the result of the photograph

taken between 1 and 2 o'clock in the afternoon. The sun already strikes the bird a little behind, and its head shews the same tendency to assume a position diametrically opposite to the direction of the sun, having turned back about 45° towards the original position. The eyes are closed as in the preceding case.

The fourth figure represents the *Nyctibius* as photographed between 3 and 4 o'clock in the afternoon. The sun is now striking it more directly from behind. The head has resumed the original direction, but, when compared with the first figure, shews, by its downward pose, that the strong afternoon sunlight is still felt to be unpleasant. The eyes are closed, though perhaps not so much as in the two preceding figures.

Now let us ask, what are the results of this investigation? Is the popular notion confirmed or refuted? The facts are certainly contrary to the popular idea, as might have been expected from numerous analogies among other nocturnal birds and mammals. It is true that in the morning the *Nyctibius* is still wide awake, and seems to feel no discomfort, but rather pleasure, from the early sunlight. It is easy to understand that a moderate amount of light and heat would feel agreeable after the cold and damp of the latter part of the night, especially under an equatorial sky. This is a law to which all the higher vertebrates, both mammals and birds, are subject, not excepting those that are purely nocturnal. A certain degree of activity is to be noticed in the early morning and late in the afternoon among a large number of nocturnal representatives of the two classes above mentioned.

The *Nacunda* (*Podager nacunda*), a medium-sized Goatsucker, which is extremely common along the rivers of the Island of Marajó, and is seen in small flocks at certain times of the year flying over the city of Pará, can be observed in its majestic aërial evolutions as early as 4 o'clock in the afternoon, a fact quite sufficient to surprise a man otherwise familiar with the habits of bird-life.

In Southern Brazil another very common Goatsucker

(*Nyctidromus albicollis*), which has the habit of retiring during the day to thick patches of under-brush, is always sufficiently on its guard not to be caught napping, and escapes soon enough to shew that it has discovered an intruder before it is discovered itself. The surprising activity manifested by the different species of the small and very handsome Owls of the genus *Glaucidium* during the whole day is also perfectly familiar to students of Brazilian ornithology.

Not a few species of Bats in South America, especially of the wood-loving kind, are to be seen in full flight both late in the morning and some hours before sunset. The diminutive and characteristic Bat of the coast-rivers of Amazonia and Guiana, the exquisite *Rhynchonycteris naso*, recognisable at once by its protruding nose and of eminently gregarious nature, always surprises me by its vigilance and agility even at full mid-day.

The examples which I have quoted serve no other purpose than to shew that the wakefulness of the Goatsucker in the early morning is perfectly analogous to what we often see among other nocturnal creatures.

The harmony between the first figure of each of the two series represents, therefore, the grain of truth in the popular notion. But the reader will see at a glance by comparison of the remaining figures of the two series, as well as from my explanations in the text, that, from that point onwards, the real facts and the popular idea have nothing in common; on the contrary, the facts are diametrically opposed to the fanciful legend of the country-people. Leniency towards folk-lore, of course, cannot go so far as to close our eyes to the fact that what the people imagine they see in the case of the Urutáu would amount to a complete misunderstanding of the character and habits of a typical nocturnal bird, and would give a false notion of them.